

Patent claims

1. Method for control of an electrophotographic pritter [sic] or copier,

5 in which data are transferred between at least one first control unit (44) and
a second control unit (46) via at least one data line (64),

a first identifier (1,2) is associated with the first control unit (44),

10 a second identifier (1,2,2) is associated with the second control unit (46),

at least one data object (V3) is stored in a storage region of the second
control unit (46),

15 and in which a third identifier (1,2,2,1) is associated with the data object,
whereby the first, second and third identifier [sic] are network addresses.
2. Method according to claim 1, characterized in that the network addresses
are hierarchically organized and that the third network addresses (1,2,2,1) is
20 hierarchically subordinate to the second network address (1,2,2).
3. Method according to claim 1 or 2, characterized in that the second network
address (1,2,2) is determined with the aid of the third network address
(1,2,2,1).
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4. Method according to claim 2 or 3, characterized in that the physical and/or
logical transfer path (60 through 68) for access to the data object (V3) is
predetermined by the hierarchical position of the third network address
(1,2,2,1).
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5. Method according to any of the preceding claims, characterized in that the data of the data object (V3) are read out from the storage region of the second control unit (46) by the first control unit (44) with the aid of the third network address (1,2,2,1) and/or data of the data object are stored in the storage region of the second control unit (46) with the aid of the third network address (1,2,2,1).
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6. Method according to any of the preceding claims, characterized in that the first control unit (44) and the second control unit (46) respectively form a network node.
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7. Method according to any of the claims 3 through 6, characterized in that the third network address (1,2,2,1) is a sub-address of the second network address (1,2,2).
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8. Method according to any of the preceding claims, characterized in that the value of the data object (V3) specifies a setting parameter.
9. Method according to any of the preceding claims, characterized in that the control units are hierarchically organized, whereby the second control unit (46) is hierarchically subordinate to the first control unit (44), and the network address (1,2,2) of the second control unit (46) is hierarchically subordinate to the network address (1,2) of the first control unit.
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10. Method according to any of the preceding claims, characterized in that at least one third control unit (50) is provided that is connected with the second control unit (46) via a second data line (68) and is hierarchically subordinate to the second control unit (46), whereby the data object are [sic] read out by the third control unit (50) via the second data line (68) and/or new data of the data object are stored.
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11. Method according to any of the preceding claims, characterized in that the first data line and/or second data line is a CAN bus connection, a LAN connection, a data line according to the V.24 standard or a data line according to the SDLC standard.
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12. Method according to any of the preceding claims, characterized in that the transfer over the first and/or second data line occurs with the aid of the Simple Network Management Protocol.
- 10 13. Method according to any of the preceding claims, characterized in that routers (72) are provided in the control units, which routers forward (dependent on the network address (1,2,2,1) of the data object (V3)) a read request and/or a write request to at one network address (1,2,2) hierarchically superordinate to the data object (V3).
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14. Method according to any of the preceding claims, characterized in that the position of the data object (V3) in the network is determined with the aid of the network address (1,2,2,1) of the data object (V3).
- 20 15. Method according to any of the preceding claims, characterized in that the commands transferred by a fourth control unit (42) according to a first data transmission standard are translated by the first control unit (44) into commands of a second data transmission standard, and the data transferred to the first control unit (44) by the second and/or third control unit (46, 50) according to the second data transmission standard translated [sic] by the
25 first control unit (44) into data according to the first data transmission standard.
16. Method according to any of the preceding claims, characterized in that the first control unit (44) is connected with the fourth control unit (62 [sic]) via
30 a third data line (62), whereby this fourth control unit (62) is superordinate

to the first control unit (44) and has access to the data object (V3) with the aid of the first control unit (44).

- 5 17. Method according to claim 15 or 16, characterized in that the first, second and third control unit (44, 46, 50) are arranged in the printer or copier, and that the fourth control unit (42) is arranged outside of the printer or copier and is connected with the printer or copier over a third data line (62).
- 10 18. Method according to any of the claims 15 through 17, characterized in that the third data line (62) is executed according to the V.24 standard, and that the printer or copier is connected (via the third data line (62) with the fourth control unit (42) for maintenance and setting jobs, whereby the data of the data object (V3) are read out via the fourth control unit (42) and/or new data of the data object (V3) are written.
- 15 19. Method according to any of the claims 15 through 18, characterized in that the fourth control unit (42) is a personal computer with suitable software.
- 20 20. Method according to any of the preceding claims, characterized in that the first control unit (44) is a base node of the network.
21. Method according to any of the preceding claims, characterized in that the data object contains a variable and/or a constant.
- 25 22. Device to control an electrophotographic printer or copier with at least one first control unit (44) with which is associated a first identifier (1,2),
- with at least one second control unit (46) with which is associated a first identifier (1,2,2),

with at least one data line (64) via which data can be transferred between the first control unit (44) and the second control unit (46),

5 whereby the second control unit (46) has a storage region in which at least one data object (V3) can be stored,

and whereby a third identifier (1,2,2,1) is associated with the data object and the first, second and third identifier [sic] is respectively a network address.